



AHELP for CIAO 3.4

## xsvpshock

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## Synopsis

Constant temperature, plane-parallel shock plasma model with variable abundances. XSpec model.

## Description

Constant temperature, plane-parallel shock plasma model. The references for this model can be found in the help file for the xsequil model ("ahelp xsequil").

### xsvpshock Parameters

Number	Name	Description
1	kT	plasma temperature in keV
2	H	hydrogen density in cm <sup>-3</sup>
3–13	(element)	abundances for He, C, N, O, Ne, Mg, Si, S, Ca, Fe, Ni with respect to Solar. Abundances are set by the xspecabundan command.
14	Taul	lower limit on ionization timescales (s/cm <sup>3</sup> ) to include
15	Tauu	upper limit on ionization timescales (s/cm <sup>3</sup> ) to include
16	redshift	redshift, z
17	norm	$10^{-14} / (4 \pi (D_A(1+z))^2) \int n_e n_H dV$ , where $D_A$ is the angular size distance to the source (cm), $n_e$ is the electron density (cm <sup>-3</sup> ), and $n_H$ is the hydrogen density (cm <sup>-3</sup> )

This information is taken from the [XSpec User's Guide](#). Version 11.3.1 of the XSpec models is supplied with CIAO 3.2.

## Bugs

For a list of known bugs and issues with the XSPEC models, please visit the [XSPEC bugs page](#).

## See Also

*sherpa*

[atten](#), [bbody](#), [bbodyfreq](#), [beta1d](#), [beta2d](#), [box1d](#), [box2d](#), [bpl1d](#), [const1d](#), [const2d](#), [cos](#), [delta1d](#), [delta2d](#), [deref](#), [devaucouleurs](#), [edge](#), [erf](#), [erfc](#), [farf](#), [farf2d](#), [fpsf](#), [fpsf1d](#), [frmf](#), [gauss1d](#), [gauss2d](#), [gridmodel](#), [hubble](#), [jdpileup](#), [linebroad](#), [lorentz1d](#), [lorentz2d](#), [models](#), [nbeta](#), [ngauss1d](#), [poisson](#), [polynom1d](#), [polynom2d](#), [powlaw1d](#), [ptsrc1d](#), [ptsrc2d](#), [rsp](#), [rsp2d](#), [schechter](#), [shexp](#), [shexp10](#), [shlog10](#), [shloge](#), [sin](#), [sqrt](#), [steph1d](#), [steplo1d](#), [tan](#), [tpsf](#), [tpsf1d](#), [usermodel](#), [xs](#), [xsabsori](#), [xsacisabs](#), [xsapec](#), [xsbapec](#),

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xsbbody, xsbbodyrad, xsbeprav, xsbeprv, xsbknpower, xsbsmc, xsbsremss, xsbsvapec, xsc6mekl,  
xsc6pmekl, xsc6pvmkl, xsc6vmekl, xscabs, xscemekl, xscvmmkl, xscflow, xscmpbb, xscmpls,  
xscmpst, xscmpptt, xsconstant, xscutoffpl, xscyclabs, xsdisk, xsdiskbb, xsdiskline, xsdiskm, xsdisko,  
xsdiskpn, xsdust, xsedg, xsequil, xsexpabs, xsexpdec, xsexpfac, xsgabs, xsgaussian, xsgnei, xsggrad,  
xsgrbm, xshighcut, xshrefl, xslaor, xslorentz, xsmeka, xsmekal, xsmkcflow, xsnei, xsnotch,  
xsnpshock, xnsa, xnntea, xspcfabs, xspgpwrlw, xspexrav, xspexriv, xspfabs, xsplabs, xsplcabs,  
xspasm, xspowerlaw, xspshock, xspwab, xsvraymond, xsrdden, xsrddge, xsrdfsch, xssedov,  
xssmedg, xsspline, xssrcut, xssresc, xssssice, xssstep, xstbabs, xstbgrain, xstbvarabs, xsvred,  
xsvapec, xsvvarabs, xsvbremss, xsvsequil, xsvgnei, xsvmcflow, xsvmeka, xsvmekal, xsvnei,  
xsvnpshock, xsvphabs, xsvraymond, xsvsedov, xswabs, xswndabs, xsxion, xszbbody, xszbremss,  
xszddge, xszgauss, xszhighcut, xszpcfabs, xszphabs, xszpowerlw, xsztbabs, xszvarabs, xszvfeabs,  
xszvphabs, xszwabs, xszwndabs

*slang*

usermodel

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URL:  
<http://cxc.harvard.edu/ciao3.4/xsvpshock.html>  
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